UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/603,690	06/26/2003	Jean Dolbec	15011-US	2875

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MARKS & CLERK
P.O. BOX 957
STATION B
OTTAWA, ON K1P 5S7
CANADA

	TARANINA, MARINA Y

ART UNIT	PAPER NUMBER
2613'	

DATE MAILED: 07/31/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>26 June 2003</u>.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-16</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration. .

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-16</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to. .

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>26 June 2003</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

Claim Objections

1.   Claim 4 is objected to because of the following informalities: line 2 recites "said

protective path". It should be corrected to "said **protection** path" to make a proper

antecedent basis for the limitation. Appropriate correction is required.

Claim Rejections - 35 USC § 103

2.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

3.   Claims 1-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Arquie et al. (US 6,636,239) in view of Walters et al. (US 2002/0176131).

(1) With respect to claim 1, Arquie discloses a system for highlighting lightpaths

in a network comprising:

means to input (mouse or keyboard connected to cursor 430 in fig. 4) via a user

interface (GUI) a selected lightpath (datapath 324a-c) from a source (322 in fig. 4) to a

destination (320 in fig. 4) in the network (col. 3 lines 17-20, col. 4 lines 4-25, 50-54),

and means to highlight (mouse, col. 4 line 38-40) said selected lightpath (datapath

324a-c) on a display (313 in fig. 4) of said user interface (GUI).

Arquie fails to teach that his system can be applied to a mesh WDM network.

Walters, however, specifically teaches the system of using graphical user interface (3405 in fig. 34) for network configuration and management systems in mesh WDM networks (fig. 30, para 0072).

WDM mesh optical networks are essential in the ongoing development of high speed communications systems as such networks present the potential for much higher bandwidth applications then possible by the conventional twisted pair systems. Using GUI software applications for network configuration and management systems gives users a flexibility and simplicity to the operating system, and is well known in the art. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use GUI for network configuration and management system in mesh WDM networks as taught by Walters in the network system and method of highlighting lightpaths of Arquie in order to provide more effective network management tool and give more flexibility and simplicity to the operating system.

(2) With respect to claim 2, Arquie further teaches the system as defined in claim 1 wherein said means to input (mouse or keyboard connected to cursor 430 in fig. 4) allows an operator to designate a path for said lightpath (datapath) (col. 4 lines 50-54).

(3) With respect to claim 3, Arquie further teaches the system as defined in claim 2 wherein said means to highlight (mouse, col. 4 line 38-40) allows highlighting of the path (col. 4 lines 55-57).

(4) With respect to claim 4, Arquie further teaches the system as defined in claim 3 wherein said highlighting for one selected lightpath (datapath) is different then said highlighting for another lightpath (datapath) (col. 4 lines 55-65).

(5) With respect to claim 5, Arquie further teaches the system as defined in claim 1 wherein said means to highlight includes a point and click input device (mouse, col. 4 line 38-40).

(6) With respect to claim 6, Arquie further teaches the system as defined in claim 1 wherein said means to input (mouse or keyboard connected to cursor 430 in fig. 4) allows an operator (user) to view the selected lightpath (datapath) on display (313 in fig. 4). Arquie does not teach the use of drill-in feature to display on a finer scale network nodes in the selected lightpaths as recited in claim 6.

However, Walters teaches the system where GUI provisions a drill-in function to display on a finer scale network nodes in the selected lightpath (para 0305, lines 1-6).

It is well known in the art to use a drill-in function to display details or parameters of a given object. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include Walters' teachings of providing a drill-in function to display on a finer scale network nodes in the selected lightpath in the system of Arquie as to make the GUI application more user friendly, flexible and easy to operate, which in turn saves user's time and improves the system's performance.

(7) With respect to claim 7, Arquie further teaches the system as defined in claim 2 wherein said path (datapath 324a-c) includes a path from said source (322 in fig. 4) to said destination (320 in fig. 4) (col. 3 lines 17-20, col. 4 lines 4-25, 50-54).

(8) With respect to claim 8, Arquie further teaches the system as defined in claim 2 wherein said path (datapath 324a-c in fig. 4) includes a path for lightpath segments (324a, 324b and 324c in fig. 4) making up the lightpath (datapath 324a-c in fig. 4).

(9) With respect to claim 9, Arquie further teaches the system as defined in claim 4 wherein different colors are used to distinguish between two selected lightpaths (datapaths, col. 4 lines 55-65).

Arquie teaches all the subject matter as described in Claims 2 (2/1)-4 and 7-9 above, but does not specify the functionality of the path (i.e. whether it is used as a working path or as a protection path).

However, Walters teaches a mesh WDM system with use of a protection path (fig. 33a and 33c, para 0290, 0292).

It is desirable to have a path protection capability in WDM networks of mesh topology. There are many reasons for this. First, optical networks that are intended for deployment in network backbones carry massive levels of communications traffic, the loss of which can be disruptive to many organizations. Second, optical switches are likely to employ state-of-the-art optical devices such as switching fabrics. The long-

term performance characteristics and longevity of such devices are not yet fully understood. Third, customers having demanding service requirements often necessitate the service provider to provide path protection feature to their customers. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include Walters' teachings of employing a path protection capability in mesh WDM networks into the Arquie's system for selectively enabling and disabling a datapath as to provide protection switching that can be initiated very rapidly in order to minimize signal disruption which, in turn, will provide better service quality and reliability.

(10) With respect to claim 10, Arquie discloses a method of highlighting a lightpath (datapath 324a-c) in a network comprising inputting (by using mouse or keyboard connected to cursor 430 in fig. 4) a selected lightpath (datapath 324a-c) from a source (322 in fig. 4) to a destination (320 in fig. 4) in a network management application (graphical representation of the network shown in fig. 4), and activating a highlight function in order to highlight the selected path on a graphical user interface (col. 4 lines 50-54).

Arquie fails to teach that his method can be applied to a mesh WDM network.

Walters, however, specifically teaches the method of using graphical user interface (3405 in fig. 34) for network configuration and management in mesh WDM networks (fig. 30, para 0072).

WDM mesh optical networks are essential in the ongoing development of high

speed communications systems as such networks present the potential for much

higher bandwidth applications then possible by the conventional twisted pair systems.

Using GUI software applications for network configuration and management systems

gives users a flexibility and simplicity to the operating system, and is well known in the

art. Therefore, it would have been obvious to one of ordinary skill in the art at the time

the invention was made to use GUI for network configuration and management system

in mesh WDM networks as taught by Walters in the network system and method of

highlighting lightpaths of Arquie in order to provide more effective network

management tool and give more flexibility and simplicity to the operating system.

(11) With respect to claim 11, Arquie further discloses the method as defined in

claim 10 wherein said network management application (graphical representation of

the network shown in fig. 4) provides a system user with input means (mouse or

keyboard) to input user selections (choice of source and destination) in response to

options (all components and groups available) presented on GUI (col. 3 lines 47-63).

(12) With respect to claim 12, Arquie further discloses the method as defined in

claim 11 wherein said GUI displays parameters (status of the datapaths), respecting

said selected lightpath (datapath 324a-c) (col. 4 lines 55-65).

(13) With respect to claim 14, Arquie further discloses the method as defined in claim 13 wherein said options (user's ability to chose a selections of groups and components, col. 3 lines 47-63) include viewing a topology of the network. Arquie does not teach the option of drilling in on a segment path to view network nodes and shelf level details as recited in claim 14.

However, Walters teaches the method where the option of drilling in on a segment path to view network nodes (OTS) and shelf level (front panel) details is provided (para 0305, lines 1-6).

It is well known in the art to use a drill-in function to display details or parameters of a given object. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include Walters' teachings of providing a drill-in function to display on a finer scale network nodes in the selected lightpath in the system of Arquie as to make the GUI application more user friendly, flexible and easy to operate, which in turn saves user's time and improves the system's performance.

(14) With respect to claim 13, Arquie further discloses the method as defined in claim 12 wherein said user is able to highlight a selected lightpath (datapath, col. 4 lines 50-54).

(15) With respect to claim 15, Arquie further discloses the method as defined in claim 13 wherein two different paths are highlighted by different means (different colors, col. 4 lines 55-65).

(16) With respect to claim 16, Arquie further discloses the method as defined in

claim 15 wherein two different paths are highlighted by different colors on said GUI

(col. 4 lines 55-65).

Arquie teaches all the subject matter as described in Claims 10-13 and 15-16

above, but does not specify the functionality of the path (i.e. whether it is used as a

working path or as a protection path).

However, Walters teaches the mesh WDM system with use of a protection path

(fig. 33a and 33c, para 0290, 0292).

It is desirable to have a path protection capability in WDM networks of mesh

topology. There are many reasons for this. First, optical networks that are intended for

deployment in network backbones carry massive levels of communications traffic, the

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likely to employ state-of-the-art optical devices such as switching fabrics. The long-

term performance characteristics and longevity of such devices are not yet fully

understood. Third, customers having demanding service requirements often

necessitate the service provider to provide path protection feature to their customers.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the

invention was made to include Walters' teachings of employing a path protection

capability in mesh WDM networks into the Arquie's system for selectively enabling and

disabling a datapath as to provide protection switching that can be initiated very rapidly

in order to minimize signal disruption which, in turn, will provide better service quality

and reliability.

Conclusion

4.   The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure.

US 2003/0006999 discloses Method and system for generating scenarios utilizing

graphical objects in a modeled environment;

US 6,247,052 discloses GUI system for telecommunication switch management system;

US 6,438,110 discloses Reservation of connections in a communication network;

US 5,910,803 discloses Network atlas mapping tool;

US 6,654,803 discloses Multipanel route monitoring GUI;

2002/0138604 discloses Method and system for management network domains.

5.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Marina Taranina whose telephone number is 571 270

1085. The examiner can normally be reached on Mon-Fri (alternative Fri off).

        If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Shuwang Liu can be reached on 571 272 2600. The fax phone number for

the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

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For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MT

SHUWANG LIU
SUPERVISORY PATENT EXAMINER